

PIVEN, V. D.

✓ Piven, V. D. The work of I. N. Vosnesenski, corresponding member of the Academy of Sciences of the USSR, in the field of automatic control. Trudy vtorogo vsesoyuznogo soveshchaniya po teorii avtomaticheskogo regulirovaniya, Tom I [Transactions of the second all-union congress on the theory of automatic control, Vol. I, pp. 63-67 (1 plate). Izdat. Akad. Nauk SSSR, Moscow-Leningrad, 1955. (Russian)]

Anton L

PIVEN, V. D.

Encl

4752. REGULATION OF BOILERS FIRED WITH PULVERIZED COAL AND BLAST FURNACE GAS. Piven, V.D. and Zosonski, A.H. (Inzhenerashnostroenie, (Par. Hoch., U.S.S.R.), Apr. 1956, (4), 13-18). An automatic system of combustion control used in boiler Mark Tr.230 fired with pulverized coal, blast furnace gas and, to some extent, coke oven gas is described. The system permits control of fuel feed with firing by blast furnace gas and pulverized fuel simultaneously, individually, or with alternate firing of the two fuels. Economy in combustion is effected with a steam-air governor with correction for blast furnace gas and vanishing impulse according to fuel mix. The combined operations of the governors with total air, blast furnace gas/air and coke oven gas/air, provide the opportunity of distributing the air in accordance with the variation in intake of all types of fuel in the boiler furnace.

C.E.A.

2

L 27252-66 EWP(h)/EWI(d)/ENP(h)/ENP(l)/ENP(v)

ACC NR: AP6009860

(A)

SOURCE CODE: UR/0413/66/000/004/0053/0053

AUTHORS: Pimenov, V. D.; Med, G. D.

ORG: none

14
TITLE: Method for pressure regulation of gas-turbine installations for pressure delivery systems. Class 27, No. 178933

SOURCE: Isobreteniya, promyshlennyye obrastay, tovarnyye snaki, no. 4, 1966, 53

TOPIC TAGS: pressure, gas pressure, pressure regulator, gas turbine

ABSTRACT: This Author Certificate presents a method of pressure regulation of gas-turbine installations for pressure delivery systems equipped with a static pressure regulator and a regulating fuel valve. The principle of the method consists of the transfer of a signal from the fuel valve to the pressure regulator, the amplitude of which is proportional to the pressure at the exit of the delivery system. To insure regulating stability for systems working on fuels of variable quality, a correction signal is applied to the regulating valve. This signal is proportional to the number of revolutions of the pressure delivery system shaft.

SUB CODE: 21/
Card 1/1 NC

SUBM DATE: 29May64

UDC: 621.515.5-531.8-843.8

PIVEN', Viktor Danilovich, doktor tekhn. nauk, prof.; BOGDANOV,
Valentin Kirillovich; GANZHERLI, Emmanuil Il'ich;
ZAMANSKIY, Abram Markovich; TROSHCHENKOV, I.I.,
retsensent; CHERKASOV, K.I., red.

[Automation of power generating systems] Avtomatizatsiya
energeticheskikh blokov. Pod obshchei red. V.E. Piven'.
Moskva, Energiia, 1965. 351 p. (MIRA 19:1)

U.S.S.R.: V. A. KOVA, I.R.; KEMALINYY, S.N.; LILIENT, V.D.;

Review: *Am. Stud.* 1 (6), 34-52, 1965.

(TRA 286)

PIVEN', V.D., doktor tekhn.nauk; LUCHKO, V.P., kand.tekhn.nauk;
BOGDANOV, V.K., kand.tekhn.nauk

Automatic control in large power generating blocks.

Energomashinostroenie 9 no.2:1-3 S '63.

(MIRA 1':1')

SHIFRIN, Moisey Shmerovich; NILEPIN, R.A., kand. tekhn. nauk,
retsensent; POLUEKTOV, R.A., kand. tekhn. nauk, retsenzent.
PIVEN', V.D., doktor tekhn. nauk, nauchn. red.;
red.; KRISTYAKOVA, R.K., tekhn. red.; KRAKOVA, R.K., tekhn.
red.

[Automatic control of marine steam power plants. theory and
design] Avtomaticheskoe regulirovanie sudovykh parosilovyykh
ustanovok; teoriya i proektirovanie. Leningrad, Sudpromgiz,
1963. 586 p. (MIRA 16:16)
(Boilers, Marine (Automatic Control))

PIVEN', V.D., doktor tekhn.nauk, BOGDANOV, V.K., kand.tekhn.nauk;
GANZHERLI, F.I., inzh.

Automatic control network of a 150 Mw. boiler-turbine block and
its experimental investigation. Energomashinostroenie 7 no.8:
1-4 Ag '63. (MIRA 16:8)
(Automatic control) (Boilers) (Steam turbines)

PIVEN', V.D., kand.tekhn.nauk

Autonomy in the use of the principle of control by the rate of variation
of a regulated parameter. [Trudy] TSKTI 36:3-10 '60. (MIRA 14:4)
(Automatic control)

PHASE I BOOK EXPLOITATION

SOV/3856

Leningrad. Tsentral'nyy nauchno-issledovatel'skiy kotloturbinnyy institut imeni I.I. Polzunova

Avtomaticheskoye regulirovaniye (Automatic Control) Moscow, Mashgiz, 1960.
138 p. (Series: Its: Sbornik, kn. 36) Errata slip inserted. 3,500
copies printed.

Scientific Ed.: V.D. Piven', Candidate of Technical Sciences; Ed. of Publishing
House: N.E. Simonovskiy; Tech. Ed.: Ye.A. Dlugokanskaya; Managing Ed. for
Literature on the Design and Operation of Machinery (Leningrad Division,
Mashgiz): F.I. Petisov, Engineer.

PURPOSE: The book is intended for personnel in planning organizations and plant
design offices and specialists in automation.

COVERAGE: This collection of 6 articles deals with automatic-control operations
in shell (drum-type) boilers, particularly those in which steam conditions are
maintained by impulses. Among the topics discussed are fuel-flow control,
superheat temperature regulation, function of the feed regulator [governor],

Card 1/4

Automatic Control

SOV/3856

combustion control in mechanical stokers with grates, and the effects of leakage and clearances in servoboosters on control. The treatment is mathematical, and a number of theoretical formulas are deduced for computing definite parameters of control operations and steam-flow processes. Empirical results proving the validity of such formulas are cited. No personalities are mentioned. References follow each article.

TABLE OF CONTENTS:

Piven', V.D. [Candidate of Technical Sciences]. Automatic Combustion-Control System Operating on the Rate of Variations of the Controlled Parameter

3

The author's modification of an ordinary control system is based on the use of double-acting regulators of the Polzunov type, intended for positive self-balancing processes. It is proven that such systems are also applicable to negative [out-of-balance] processes, which are automatically corrected so as to regain the proper ratios between the quantities under control. This "flowmatic" type of control operates on the variations in the rate of steam flow from the boiler.

Card 2/4

Automatic Control

80V/3856

Sen'kin, V.I., and V.S. Poberchiy [Engineers]. Analysis of Combustion Equations Relative to the Dynamics of Natural-Circulation Shell Boilers

11

The analysis is attempted for the case when steam is generated by a succession of impulses, large enough to compensate for intervals between impulses. Formulas are deduced to determine the relationship between two different vapor "volumes" under the surface of evaporation, that is, the differential ratio of vapor under evaporation [in cubic meters] to the quantity of vapor obtained from the boiler [in kilograms per second].

Ayzenshtat, I.I. [Engineer]. Ways of Improving the Automatic Temperature-Control System for Superheated Steam in Shell Boilers

47

The article outlines the principles of intermediate desuperheating and suggests a three-impulse controlled-superheater system instead of the usual two-impulse type. Equations for the computation of the control parameters for a "multi-impulse" regulator are given.

Card 3/ 4

7-25-60

Report to be presented at the 1st All-Union Congress of the
Control, 25 Jan-5 Feb 1960, Moscow, USSR.

1. A. Ya. - "The application of a self-adjusting system of automatic control".
2. V. B. PERKIN, A. A. and G. M. - "Industrial telemanagement systems and digital technology".
3. V. B. PERKIN, A. A. and G. M. - "Some peculiarities of the structure of multi-communication regulation systems".
4. V. B. PERKIN, A. A. and G. M. - "Evaluation indices and the possibility of determining the quality of telemanagement systems".
5. V. B. PERKIN, A. A. and G. M. - "Concerning the problem of establishing relations in automatic regulation systems".
6. V. B. PERKIN, A. A. and G. M. - "Principles of construction of digital double mode regulation systems".
7. V. B. PERKIN, A. A. and G. M. - "Regulation with the presence of systems of automatic control".
8. V. B. PERKIN, A. A. and G. M. - "Systems of automatic control of digital calculating machines".
9. V. B. PERKIN, A. A. and G. M. - "Some principles of regulating systems of complex systems".
10. V. B. PERKIN, A. A. and G. M. - "Systems of automatic regulation with intermediate control".
11. V. B. PERKIN, A. A. and G. M. - "The invariant principle and its application in the calculation of linear and non-linear systems".
12. V. B. PERKIN, A. A. and G. M. - "The problem of autonomy in the technique of automatic control".
13. V. B. PERKIN, A. A. and G. M. - "Some problems of synthesis of automatic control non-linear systems".
14. V. B. PERKIN, A. A. and G. M. - "Method of determining the optimum system with respect to the linear relation of the observed function with the parameters of the system".
15. V. B. PERKIN, A. A. and G. M. - "The problem of construction of a single channel of control in the theory of automatic control".
16. V. B. PERKIN, A. A. and G. M. - "The development of the theory of relay devices".
17. V. B. PERKIN, A. A. and G. M. - "Dynamic characteristics of systems with slight angle of rotation".
18. V. B. PERKIN, A. A. and G. M. - "The problem of investigating the quality of automatic control systems".
19. V. B. PERKIN, A. A. and G. M. - "Dynamic of automatic regulation of boiler-turbine systems".
20. V. B. PERKIN, A. A. and G. M. - "Automatic control of composition of multi-component mixtures".
21. V. B. PERKIN, A. A. and G. M. - "Some peculiarities of work for the control of radiative radiation of automatic control of analog machines".
22. V. B. PERKIN, A. A. and G. M. - "Analysis and synthesis of automatic control systems with the aid of calculating machines".
23. V. B. PERKIN, A. A. and G. M. - "Optimization of their use for solution of variation problems in automatic synthesis".
24. V. B. PERKIN, A. A. and G. M. - "A system of alternating current electric drives with automatic power supply".
25. V. B. PERKIN, A. A. and G. M. - "Apparatus for control of trajectory of motion with the use of multi-channel control".
26. V. B. PERKIN, A. A. and G. M. - "Methods of controlling the trajectory of motion of linear systems and inhibitive determination of type of trajectory".
27. V. B. PERKIN, A. A. and G. M. - "Theory of trajectory control".
28. V. B. PERKIN, A. A. and G. M. - "Stability of telemanagement systems".
29. V. B. PERKIN, A. A. and G. M. - "Interrelation of a mathematical modeling and modeling technology experiment in regulating linear in electronic systems".

PIVEN' V.D., kand. tekhn. nauk.; GANZHERIJ, E.I., inzh.; BOGDANOV, V.K., inzh.

Automation of unit-plant installations. Energomashinostroenie 4
no. 6:1-7 Je '58.

(MIRA 11:3)

(Automatic control)
(Steam power plants)

MERCHANSKIY, Dmomid Pavlovich; PIVEN', V.N., inzh., retsenzent;
YAKOBSON, M.O., doktor tekhn. nauk, prof., retsenzent;
POGODIN, B.A., inzh., red.; CHFAS, M.A., red.isd-va;
SHCHETININA, L.V., tekhn. red.

[Gear cutting] Zuboreznoe delo. Moskva, Mashgiz, 1962. 211 p.
(Gear cutting) (MIRA 16:3)

PIVEN, Ya.

2

187° (Effect of Temperature of Ceramic Film on Viscosity
and Casting Rate.) Vlianiye temperatury na strukturalno-
viskoznost' keramicheskikh sloev i skoreost' nabeza chere-
pki. L. A. Piven. Steklo i Keramik, v. 11, no. 8, Sept. 1984,
p. 8-9.
Includes graphs, table.

18. ... [Name], [Name], [Name], [Name]; ... [Name]
... [Name], [Name]; [Name], [Name]. [Name], [Name].

... the parameters of tunnel baking ovens for the purpose
of the control of their thermal conditions. Khar. prom. no. 3:23-
18. 11-5 1955.

PIVEN', Ye.N.; KOZAKEVICH, A.M.; BERNADSKIY, V.A.; FATEYEV, . . .

New system for regulating furnace pressure. *ibid.* 1964.
23-24 D '64.

18:37

LEVCHENKO, YE.S., PIVEN, YU.V., KIRSANOV, A.V.,

Reaction of phosphorus diiodide with alkyl halides.

Khimiya i Primeneniye Sofformirovaniya Sovedimoviy Khimicheskoy
aplication of organophosphorus compounds. A. V. Kirsanov, A. V. Piven,
and by Kazar Afil Adad (1967), Moscow 1967.

Collection of complete papers presented at the 1st National Conference
Chemistry of Organophosphorus Compounds.

LEVCHENKO, Ye.S.; PIVEN', Yu.V.; KIRSANOV, A.V.

Alkylation of phosphorus diiodide. Zhur.ob.khim. 30 no.6:
1976-1981 Je '60. (MIRA 13:6)

1. Institut organicheskoy khimii Akademii nauk Ukraineskoy
SSR.

(Phosphorus iodide) (Alkylation)

PIVENKO, I.P.; SUKHOMLINOV, A.K.; KALASHNIKOV, I.S.

Planned curriculum for program on "The
Apt. deo 11.11.54-55. - 11.11.55.

Aj. t. delc 21. 11. 548-5. - 11. 11.

U.S. MAIL PERMIT NO. 607 NEW YORK, N.Y.

CHERNOV, M. Yu.; PIVNENKO, G. P. [Pivnenko, H. P.]; MARENICH, I. P. [Marenich, I. P.]

Production of drugs in the form of stable juices from the grass,
Cheilidonium majus. Farmatsev. zhur. 16 no. 6: 43-48 '61. (MIRA 15:5)

1. Kafedra tekhnologii lekarstvennykh form i galenovykh preparatov
Khar'kovskogo farmatsevticheskogo instituta.
(COLANDINE)

PIVNEKO, V.N.

Spectral theory of the operator— $\Delta + k$ in infinite space, in which k is a bounded Hermitian operator. Izv. vys. ucheb. zav.: no.1:164 '62.

(MIRA 3:1)

(Operators (Mathematics))
(Spaces, Generalized)

THANKS TO THE PLANNING OF THE PROSECUTION OF THE CASE OF THE
HABOVS OF THE 1970s.

Among the most important of the 1970s was the case of the
KARAK V. THE PROSECUTION OF THE 1970s.

KARAK V. THE PROSECUTION OF THE 1970s.

PIVNEŃKO, G.P. [Pivnenko, H.P.]; BOTNIKOVA, O.M.; KHARCHENKO, N.S.
[Kharchenko, M.S.]; KULEVICH, V.A.; MALAYA, L.T. [Malaya, L.T.];
SAFRONOVA, V.I.

Antisclerotic preparation based on one of vegetable oils.
Farmatsy. zhur. 20 no. 6:16-12 1965.

(MIRA 10:1)

1. Kafedra tekhnologii lekarstv Khar'kovskogo farmatsivticheskogo
instituta; kafedra farmakologii i kafedra gosital'noy terapii
Khar'kovskogo meditsinskogo instituta. Submitted December 21,
1964.

PIVENSHEYN, D.I., kand. tekhn. nauk (Sverdlovsk)

New methods for evaluating the operations of the locomotive
fleet. Zhel. dor. transp. 45 no. 40-41 Ja '63.

(MIRA 16-7)

(Railroads--Management)

BOGDANOV, Igor' Aleksandrovich; IL'KIN, David Il'ich;
KARL, V.Yu., ed.

Analysis of the operation of railroads. Analiz eks-
pluatatsionnoi raboty zheleznynkh dorog. Moskva, Trans-
port, 1964. 195 p. (MIRA 17:6)

PIVENSHTEN, D.I., kand.tekhn.nauk

Methods for traffic capacity calculations must be accurate.
Zhel.dor.transp. 43 no.2:51-53 P '61. (MIRA 14:4)

1. Glavnyy inzh.sluzhby dvizheniya Sverdlovskoy dorogi, g.Sverdlovsk.
(Railroads—Traffic) (Railroads—Management)

KUTYIEV, Georgiy Mikhaylovich; PIVENSHTEYN, David Il'ich; PRIDE, V.Yu.,
red.; USENKO, L.A., tekhn.red.

[Work practices of the dispatchers of the Sverdlovsk Railroad]
Opyt raboty dispatcherov Sverdlovskoi dorogi. Moskva, Vses.
izdatel'sko-poligr.ob'edinenie M-va putei soobshchenia, 1961.
37 p. (MIRA 14:4)

(Railroads--Train dispatching)

VARGIN, S.N.; PIVENSHTEYN, D.I.

Further potentialities in the organization of traffic and freight operations due to the new traction forms. Zhel.dor.transp. 42
no.5:27-31 My '60. (MIRA 13:9)

1. Nachal'nik sluzhby dvizheniya Sverdlovskoy dorogi (for Vargin).
2. Glavnyy inzhener sluzhby dvizheniya Sverdlovskoy dorogi (for Pivenshteyn).

(Railroads--Electrification)

PIVENSHTeyN, David Il'ich.; AL'TERMAN, S.L., red.; KHITROV, P.A., tekhn. red.

[Efficient utilization of railroad facilities; experience of the
Sverdlovsk Railroad] Ratsional'noe ispol'zovanie propusknoi
spособnosti zheleznoi dorogi; opyt Sverdlovskoi dorogi. Moskva,
Jos. transp. zhel-dor. izd-vo, 1958. 49 o. (MIRA 11:11)
(Railroads--Management)

PIVERSHTEYN, D.I.

Train sheets and efficient utilization of traffic capacity
during track repair works. Zhel.dor.transp. 41 no.8:51-54
Ag '59. (MIRA 12:12)

1. Glavnyy inzhener sluzhby dvizheniya Sverdlovskoy dorogi.
(Railroads--Traffic)
(Railroads--Track--Maintenance and repairs)

PIVENSHTAYN, D.I. (Sverdlovsk)

New methods of servicing trains and the combining of positions.
Zhel.dor.transp. 37 no.5:16-19 My '56. (MLRA 9:8)

1. Glavnyy inzhener sluzhby dvizheniya Sverdlovskoy dorogi.
(Railroads--Maintenance and repair)

~~PIVKUSHEV, D.I.~~

Effective methods of increasing traffic and hauling capacity of
the railroads. Zhel.dor.transp. 39 no.6:32-37 Je '57. (MLRA 10:7)

1. Glavny inzhener sluzhby dvizheniya Sverdlovskoy dorogi.
(Railroads--Traffic)

PIVENSHTIYN, Yu.D.

Amphibole-asbestos mineralization of the Kokchetav anti-clinorium and characteristics of the actinolite-asbestos localization. Zakonom. razm. polezn. iskop. 6:325-333 '62.
(MIRA 16:6)

1. Severo-Kazakhstanskoye geologicheskoye upravleniye.
(Kazakhstan--Asbestos)
(Kazakhstan--Amphibole)
(Kazakhstan--Actinolite)

...A, G. M. ...Mi, Ya. L. BLOKH, A. M. CHETIYA, L. I. DORMAN
...KAMMER, T. V. KEBULADZE, V. Z. KOYAVA, Ye. V. KOLOMEYETS, V. O. ...
...PILVEREVA, M. I. TYASTO

...Ray Effects During Magnetic Storms

...port submitted for the 8th Intl. Conf. on Cosmic Rays (IUPAP), Jaipur India,
-14 Dec 1963

CZECHOSLOVAKIA / General and Specialized Zoology.
Insects. Forest Pests.

P

Abstr Jour : Ref Zhur - Biol., No 17, 1958, No 78393

Authors : Kalandra, ~~Pivets~~, Kudler, Kolubajil., Hinterbuch-
ner, Patocka.

Inst : Not given

Title : Control of Mass Forest Pests in Czechoslovakia
in Recent Years.

Orig Pub : Lesn. prace, 1957, 36, No. 2, 59-62

Abstract : Review of the control measures of mass pests and
diseases of forests, and their results. There is
a description of the control of the oak leaf roller,
the gypsy moth, the winter moth, the pine moth,
nun moth, fir leaf roller, spruce web-spinning
sawfly, fir black sawfly, Tachynotus scutellatus,
Cheimatobia boreata and Archymus sp. A
few of the distributed fungus diseases of forest
species are also mentioned.

Card 1/1

PIVETZ, B.

Present condition of the forest pests in Czechoslovakia and the forecast for 1957.
in German. p. 280. (SBORNÍK. RADA LESNICTVÍ, Vol.(30) , no. 4, Apr. 1957.
Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (ERAL) LC, Vol. 6, no. 10, October 1957. Uncl.

CZECHOSLOVAKIA / Plant Diseases. Forest Trees.

0-1

Abs Jour: Ref Zhur-Biol., 1958, No 17, 78000

Author : ~~Pivatz, B.~~; Kudler, J.; Jancarik, V.

Inst : Not given

Title : Basic Diseases of Tree Species in 1957, and
Prognosis of Their Appearance in 1958, in the
Forest of the Czechoslovakian Republic.

Orig Pub: Lesn. prace, 1958, 37, No 3, 124-126

Abstract: No abstract.

Card 1/1

3

ALIYEV, El'dar Shirali ogly; VINOGRADOV, Konstantin Vladimirovich; PIRVERDYAN, A.M., prof., doktor tekhn. nauk, red.; RASHEVSKAYA, T.A., red. izd-va

[Determining the saturation pressure of formation oil directly on a well bottom] Opređenje davleniia nasyshcheniia plastovoi nefti neposredstvenno na saboe skvashiny. Baku, Azerbaidzhanaskoe gos. izd-vo neft. i nauchno-tekhn. lit-ry, 1960. 95 p. (MIRA 14:8)
(Oil reservoir engineering)

PIVERDYAN, A. M. (Baku)

"An Attempt to Outline a Theory of Fluid Seepage Through Micro-Nonhomogeneous Porous Media."

report presented at the First All-Union Congress on Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb 1960.

11012-1111, 1-11

PHASE I BOOK EXP. 1741.2 SOV/489
Vsesoyuznoye sveshcheniye po fizike, fiziko-khimicheskimi svoystvami
ferritov i fizicheskimi osnovam ikh primeneniya 3d, Minsk, 1969
Perrity; fizicheskiye i fiziko-khimicheskiye svoystva Dostizhiy
(Perrites; Physical and Physicochemical Properties Reports
Minsk, 1st-10th AN USSR, 1960. 656 p. 1st rate slip inserted
4,000 copies printed.

Sponsoring Agencies: Nauchnyy sovet po magnetizmu AN USSR Otdel
fizikal'nykh tverdogo tela i poluprovodnikov AN USSR Otdel

Editorial Board: Resp. Ed.: N. M. Sirota, Academician of the
Academy of Sciences USSR; A. P. Melov, Professor, Ye. I. Kondor-
sky, Professor, Ye. I. Polivanov, Professor, M. V. Tselenin, Pro-
fessor, O. A. Solntsev, Professor, M. M. Shol'ts, Candidate of
Physical and Mathematical Sciences; E. M. Smolyarovich and
L. A. Babukin, Ed. of Publishing House: S. Kholyavsky, Tech.
E. I. Volokhovskiy.

PURPOSE: This book is intended for physicists, physical chemists,
radio electronics engineers, and technical personnel engaged in
the production and use of ferromagnetic materials. It may also
be used by students in advanced courses in radio electronics,
physics, and physical chemistry.

COVERAGE: The book contains reports presented at the Third All
Union Conference on Ferrites held in Minsk, Belorussian SSR.
The reports deal with magnetic transformations, electrical and
galvanomagnetic properties of ferrites, studies of the growth
of ferrite crystals, problems in the theory of the growth
of rectangular domains of ferrites, studies of ferrite and physio-
mechanical properties of ferrites, studies of ferrite domains
exhibiting spontaneous loops and multicomponent ferrite systems
attracting, highly coercive ferrites, problems in magnetic
ferromagnetic resonance in ferrites, magnetic spectroscopy
using ferrite components in spectroscopy, physical principles of
electrical and magnetic properties in ferrites, anisotropy of
optical and magnetic properties in ferrites, etc. The Committee on Mag-
netism, AN USSR (S. V. Vonsovskiy, Chairman) organized the con-
ference. References accompany individual contributions.

SOV/489

Perrites (Cont.)

Shamoyev, Yu. M., A. I. Pivovarov, and O. P. Lisitsyn
Method and Results of an Experimental Study of the
Dynamic Characteristics of Pulsed Reversal of Magnetiza-
tion of Ferrites 409
Bardish, V. V., and V. V. Kobelev. Computation of Curves of
the Reversal of Magnetization of Ferrite Cores 423
Shamoyev, Yu. M. The Relationship Between Static and
Dynamic Characteristics of Ferrites During Pulsed Reversal
of Magnetization 437
Syrtin, L. M., M. A. Shavrovskiy, and O. M. Shishkin. The
Pulse Method of Studying Magnetostrictive Oscillations in
Ferrites 441
Kupriyanov, I. K., and D. I. Mironovskiy. Magnetic Analog
of the Dielectric Film of Southworth 451

Card 1378

--- 4 4/10

L 32970-65 EWT(m)/EWP(j)/T Po-4: RM

ACCESSION NR: AP5007179

8/0286/85/000/003/0046/0046

AUTHOR: Kudryavtsev, G. I.; Odnoralova, V. N.; Pivikova, R. D.; Stal'bovskaya, A. V.

TITLE: A method for thermal stabilization of polyamide fibers. Class 29, No. 167952

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 3, 1965, 46

TOPIC TAGS: polymer, fiber, thermal stabilization, polyamide

ABSTRACT: This Author's Certificate introduces a method for thermal stabilization of polyamide fibers by grafting unsaturated acids to the finished fiber at 60-80°C. The grafted fiber is then treated with copper acetate or calcium acetate. The stability of the fiber at high temperatures is increased by using N-formylamidoacrylic acid containing a chelating group in a dimethylformamide solution as the unsaturated acid.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (All-Union Scientific Research Institute for Synthetic Fibers)

Cord 1/4

PIVINSKIY, Yu.

Using hopper feeders in brick factories. Sel'.stroi. 18 no.11:19
N '63. (MIRA 17:3)

1. Starshiy inzh.-keramik Belgorodskoy oblastnoy mezhkolkhoznoy
stroitel'noy organizatsii.

PIVICOV, B.

Peat

Machine-tractor station in the attempt to increase the fertility of podzolic soils.
Kolkh. proizv. No. 3, 1953.

SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

PIVINA, A. F.

'I: Report to A. F. PIVINA of Calicut State for Disease."
Snd 1 Oporol, no. 7, 1951, pp. 66-77. H. S. 17

So: Sira-Si-10-57, 15 Dec. 1955

ZAGLYADIMOV, Dmitriy Petrovich; PETKOV, Aleksandr Petrovich;
SERGEYEV, Yevgeniy Stepanovich; AKHMEYEVICH, L.K.,
retsenzent; VARGIN, S.K., retsenzent; YERMAKOV, A.A.,
retsenzent; KOZAK, V.A., retsenzent; MODZOLEVSKIY,
I.V., retsenzent; PERSHIN, B.F., retsenzent; FIVENSHTAYN,
D.I., retsenzent; PROKOF'YEV, A.G., retsenzent; SNETANIN,
A.I., retsenzent; SHESTAKOV, A.I., retsenzent; RYSHK,
N.S., red.

[Organization of traffic in railroad transportation] Orga-
nizatsiya dvizheniya na zheleznodorozhnom transporte.
Izd.4. Moskva, Transport, 1964. 542 p. (MIRA 18:1)

PIVENSHTYK, D.I., insh.

Some current problems of evaluating the existing capacities of
the railroads. Vest. TSNII MPS 16 no.8:42-44 D '57. (MIRA 11:1)
(Railroads--Traffic)

ROMANOVSKIY, P.L.; PIVENSHTAYN, D.I.

New ideas in the organization of train movement on heavy traffic
lines. Zhel. dor. transp. 39 no.12:65-67 D '57. (MIRA 11:1)

1. Starshiy dispetcher Parnoskogo otdeleniya Sverdlovskoy dorogi
(for Romanovskiy). 2. Glavnyy inzhener sluzhby dvizheniya
Sverdlovskoy dorogi (for Pivenshteyn).
(Railroads--Traffic)

CZECHOSLOVAKIA / General and Specialized Zoology. Insects P
Forest Pests.

Abstr Jour : Ref Zhur - Biol., No 17, 1958, No 75325

Authors : ~~Sivetz, B.~~ Kudler, J.; Jencarik, V.

Inst : Not given

Title : Condition of the Basic Insect-Pests in 1957,
and a Prognosis of Their Distribution in the
Forests of Czechoslovakia in the Current Year.

Orig. Pub : Lesn. pr. ce, 1958, 37, No. 2, 75-79.

Abstract : No abstract given.

Card 1/1

PIVIN, Fedor Sergeyevich; RUBCHINSKIY, A.M., kand.ekonom.nauk, retsenzent;
KLIMOV, A.N., kand.tekhn.nauk, retsenzent; PETROV, V.A., kand.
tekhn.nauk, red.; VARKOVETSKAYA, A.I., red. izd-va; PETERSON, M.M.,
tekhn. red.

[Operation and production planning in serial machinery manufactur-
ing; from the practice of plants manufacturing heavy machinery with
a continuous assembly line] Operativno-proizvodstvennoe planirovanie
v seriinom mashinostroenii; iz opyta zavodov krupnogo mashinostro-
eniia s potочноi sborkoi izdelii. Moskva, Mashgiz, 1962. 205 p.
(MIRA 15:7)

(Machinery industry) (Assembly-line methods)

117714, .

Photographs in programming the planning and construction.
7741.stoi. no.8:10-13 '65. (MIRA 18:8)

NESTERENOK, Ye.S., arkhitektor; PERKIN, V.M., arkhitektor

Developing rugged areas in the Kuznetsk Basin. Trudy zap.-Sib. fil.
AS A no.7:33-41 1962. (SFA 18:2)

GORSHKOV, V.Ye., kand. geogr. nauk; PIVKIN, V.M., arkhitektor

Providing for sun exposure and for shading in the building of cities
in Western Siberia. Trudy Zap.-Sib. fil. ASIA no.7:42-5" '62.
(MIRA 18:2)

1. PIVKINA, A.F.
2. USSR (1977)
3. "Concerning the Hybridization of Linear 'Stereo' and 'Quasi' (Puccinia graminis f. sp. tritici) in the Far East in the Form of Urushores", Soedin. Dokl. Akad. Nauk SSSR (Soviet Union), 1977, No. 1, p. 100. (Unpublished)
4. "Concerning the Hybridization of Linear 'Stereo' and 'Quasi' (Puccinia graminis f. sp. tritici) in the Far East in the Form of Urushores", Soedin. Dokl. Akad. Nauk SSSR (Soviet Union), 1977, No. 1, p. 100. (Unpublished)
5. "Concerning the Hybridization of Linear 'Stereo' and 'Quasi' (Puccinia graminis f. sp. tritici) in the Far East in the Form of Urushores", Soedin. Dokl. Akad. Nauk SSSR (Soviet Union), 1977, No. 1, p. 100. (Unpublished)
6. "Concerning the Hybridization of Linear 'Stereo' and 'Quasi' (Puccinia graminis f. sp. tritici) in the Far East in the Form of Urushores", Soedin. Dokl. Akad. Nauk SSSR (Soviet Union), 1977, No. 1, p. 100. (Unpublished)
7. "Concerning the Hybridization of Linear 'Stereo' and 'Quasi' (Puccinia graminis f. sp. tritici) in the Far East in the Form of Urushores", Soedin. Dokl. Akad. Nauk SSSR (Soviet Union), 1977, No. 1, p. 100. (Unpublished)
8. "Concerning the Hybridization of Linear 'Stereo' and 'Quasi' (Puccinia graminis f. sp. tritici) in the Far East in the Form of Urushores", Soedin. Dokl. Akad. Nauk SSSR (Soviet Union), 1977, No. 1, p. 100. (Unpublished)
9. "Microbiology", Vol. XXI, Issue 1, 1977, Jan-Feb, p. 100-101. (Unpublished)

1. PIVKINA, A.F.
2. USSR (600)
7. "Concerning the Question of Analyzing Cabbage Seeds for Disease", Sad 1 Ogorod, No 3, 1951, pp 68-70.

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

1. The first of the two main

... of the ...
... of the ...
... of the ...
... of the ...

ACC NR: AR6022897

SOURCE CODE: UR/0081/45/000/005/10

AUTHOR: Ivanov, B. G.; Stoyanovskaya, B. A.; Pivkina, M. P.

TITLE: Increasing the surface hardness of parts made of aluminum alloys

SOURCE: Ref. zh. Khimiya, Part II, Abs. 51257

REF SOURCE: Sb. Zashchita met. ot korrozii. Kuybyshev, 1965, 40-42

TOPIC TAGS: aluminum, aluminum alloy, anodization, chromium plating

ABSTRACT: In order to increase their surface hardness and wear resistance, parts made of Al and its alloys are subjected to anodization or chromium plating, depending upon the conditions of their operation and the requirements placed on them. For parts made of AL4 alloy, the following procedure preceding chromium plating is recommended: (1) degreasing with organic solvents; (2) chemical cleaning followed by rinsing in hot and cold water; (3) etching in an $\text{HNO}_3 + \text{HF}$ mixture and washing in cold water, with an etching time of 1 min at a solution temperature of 18-25°; (4) treatment in a zincate solution (Zn 20-30 g/l, NaOH 120-130 g/l) at 18-25° for 1 min. To achieve a higher-quality bonding of the Cr-coating to the base, it is necessary to repeat the zincate treatment, first removing the film in 50% HNO_3 for 15-30 sec. The chromium plating is carried out in a standard electrolyte. A brief current pulse is first delivered for 1-2 min. D_c , 120 A/dm², is decreased to 60 A/dm². The parts are screened while the current is passing through. The procedure for preparing the surface of AK6 and AK8 alloys, which con-

Card 1/2

ACC NR: AR6022897

tain appreciable amounts of alloying admixtures, particularly Cu, is described. Zinc-
ate treatment is insufficient for them, since the contact-deposited Zn deposits uneven-
ly on the surface. In this case, the deposition of a Zn coating of small thickness is
necessary. For deep anodizing of Al alloys containing Cu, the use of an electrolyte
with a high H_2SO_4 concentration is recommended; this makes it possible to lower the
temperature of the electrolyte and to obtain anodic films of sufficiently high quality
and uniform thickness. I. Potapov. [Translation of abstract].

SUB CODE: 13
11'

Card 2/2

APPROVED FOR RELEASE: Tuesday, August 01, 2000

retsenz; USTIMENKO, P.I., insh., retsenz; KHDOROV,
L.R., insh., retsenz; NOVIKAS, M.N., insh., red.;
KHITROV, P.A., tekhn. red.

[Manual on railroad wire communication equipment] Spravochnik
po apparature transportnoi provodnoi svyazi. Moskva, Trans-
zheldorizdat, 1963. 359 p. (MIRA 16:7)
(Railroads—Communication systems)

BARANOV, A.F., redaktor; BIZYUKIN, D.D., redaktor; VAKHNIN, M.I., otvetstvennyy redaktor toma, professor, doktor tekhnicheskikh nauk; VEDENISOV, B.E., redaktor; IVLIYEV, I.V., redaktor; MOSHCHUK, I.D., redaktor; RUDOI, Ye.F., glavnyy redaktor; SOKOLINSKIY, Ya.I., redaktor; SOLOGUBOV, V.M., redaktor; SHILEVSKIY, V.A., redaktor, ALFEROV, A.A., inzhener; ANASHKIN, B.T., inzhener; APANAS'YEV, Ye.V., laureat Stalinskoy premii, inzhener; BELENKO, K.M., dotsent, BORISOV, D.P., dotsent, kandidat tekhnicheskikh nauk; ZHIL'TSOV, P.N., inzhener; ZBAR, N.R., inzhener; IL'YENKOV, V.I., dotsent, kandidat tekhnicheskikh nauk; KAZAKOV, A.A., kandidat tekhnicheskikh nauk; KRAYZMER, L.P., kandidat tekhnicheskikh nauk, KOTLYARENKO, N.F., dotsent, kandidat tekhnicheskikh nauk; MAYSHEV, P.V., professor, kandidat tekhnicheskikh nauk; MARKOV, M.V., inzhener; NELEPETS, V.S., dotsent, kandidat tekhnicheskikh nauk; NOVIKOV, V.A., dotsent; ORLOV, B.A., inzhener; PETROV, I.I., kandidat tekhnicheskikh nauk, PIVKO, G.M., inzhener; POGODIN, A.M., inzhener; RAMLAU, P.N., dotsent, kandidat tekhnicheskikh nauk; ROGINSKIY, V.M., kandidat tekhnicheskikh nauk; RYAZANTSEV, B.S., laureat Stalinskoy premii, dotsent, kandidat tekhnicheskikh nauk; SHARSKIY, A.A., inzhener, FEL'DMAN, A.B., inzhener; SHASTIN, V.A., laureat Stalinskoy premii, inzhener, SHUR, B.I., inzhener; GONCHUKOV, V.I., inzhener, retsensent; NOVIKOV, V.A., dotsent, retsensent; APANAS'YEV, Ye.V., laureat Stalinskoy premii, retsensent;

[Technical handbook for railroad men] Tekhnicheskii spravochnik shelesnodorozhnika. Vol. 8. [Signaling, central control, block system, and communication] Signalizatsiya, tsentralizatsiya, blokirovka, svyaz'. Red. kollegiya A.F.Baranov [i dr.] Glav.red. Ye.F.Rudoi. Moskva, Gos. transp. shel-dor. izd-vo, 1952. 975 p. (Continued on next card)

BRYLEYEV, A.M., laureat Stalinskoy premii, inzhener, GAMBURG, Ye.Yu., inzhener, retsensent; GOLOVKIN, M.K., inzhener, retsensent; KAZAKOV, A.A., kandidat tekhnicheskikh nauk, retsensent, KUT'IN, I.M., dotsent, kandidat tekhnicheskikh nauk, retsensent, LEONOV, A.A., inzhener, retsensent; SIDOROV, N.M., laureat Stalinskoy premii, inzhener, retsensent; CHERNYSHEV, V.B., inzhener, retsensent; VALUYEV, G.A., inzhener, retsensent; MUFTAS, N.A., laureat Stalinskoy premii, inzhener, retsensent; BOVIKOV, V.A., dotsent, retsensent; PIVOVAROV, A.L., inzhener, retsensent; POGODIN, A.M., inzhener, retsensent; KHODOROV, L.B., inzhener, retsensent; PIVOVAROV, A.L., inzhener, retsensent, POGODIN, A.M., inzhener, retsensent, KHODOROV, L.B., inzhener, retsensent, SHUPLOV, V.I., kandidat tekhnicheskikh nauk, retsensent, KLYKOV, A.P., inzhener, retsensent, YUDZON, D.M., tekhnicheskiiy redaktor, VERINA, G.P., tekhnicheskiiy redaktor.

[Technical handbook for railroad men] Tekhnicheskii spravochnik shellesnodorozhnika. Vol. 8. [Signaling, central control, block system, and communication] Signalizatsiya, tsentralizatsiya, blokirovka, svyaz'. Red. kollegiya A.F. Baranov [i dr.] Glav. red. E.F. Rudoi. Moskva, Gos. transp. shel-dor. izd-vo, 1952. 975 p. (Card 2) (MLRA 8:2)
(Railroads--Signaling) (Railroads--Communication systems)

PIVKO, Konstantin Mikhaylovich; PIVKO, G.M., inzh., red.; KHITROV, P.A.,
tekhn. red.

[Overhead and cable communication lines] Vozdushnye i kabel'nye
linii svyazi. Moskva, Gos. transp. shel-dor. izd-vo, 1958. 190 p.
(Telephone lines) (Telephone cables) (MIRA 11:7)

ARKHIPOV, Petr Stepanovich; PIVKO, Gennadiy Mikhaylovich; MARENKOVA,
G.I., inzh., red.; KHITROW, P.A., tekhn.red.

[Brief reference book for electricians and wire communication
technicians of transportation systems] Kratkii spravochnik
elektromekhanika i montera transportnoi provodnoi svyazi. Moskva,
Vses.izdatel'sko-poligraf.ob"edinenie M-va putei soobshchenia,
1960. 125 p. (MIRA 13:6)

(Telephone--Handbooks, manuals, etc.)

(Telegraph--Handbooks, manuals, etc.)

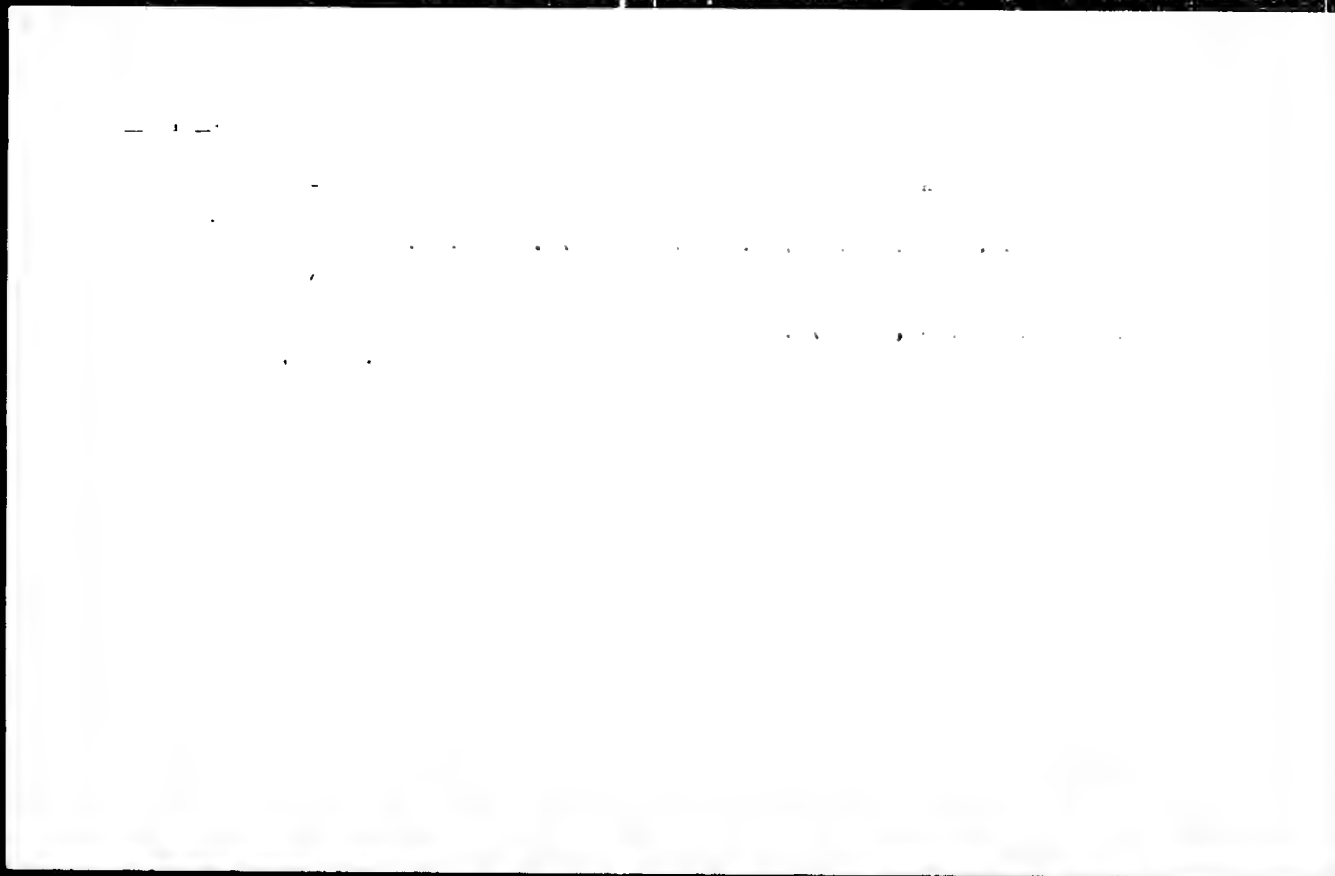
(Railroads--Communication systems)

PIVKO, Gennadiy Mikhaylovich; KATSALAPENKO, V.I., inzhener, redaktor;
VERINA, G.P., tekhnicheskiy redaktor

[Reference manual for electricians on railroad communication lines]
Spravochnik elektromekhanika provednoi transportnoi svyazi. Moskva,
Gos. transp.zhel-dor. izd-vo, 1956. 575 p. (MIRA 10:3)
(Railroads--Communication systems)
(Electric engineering)

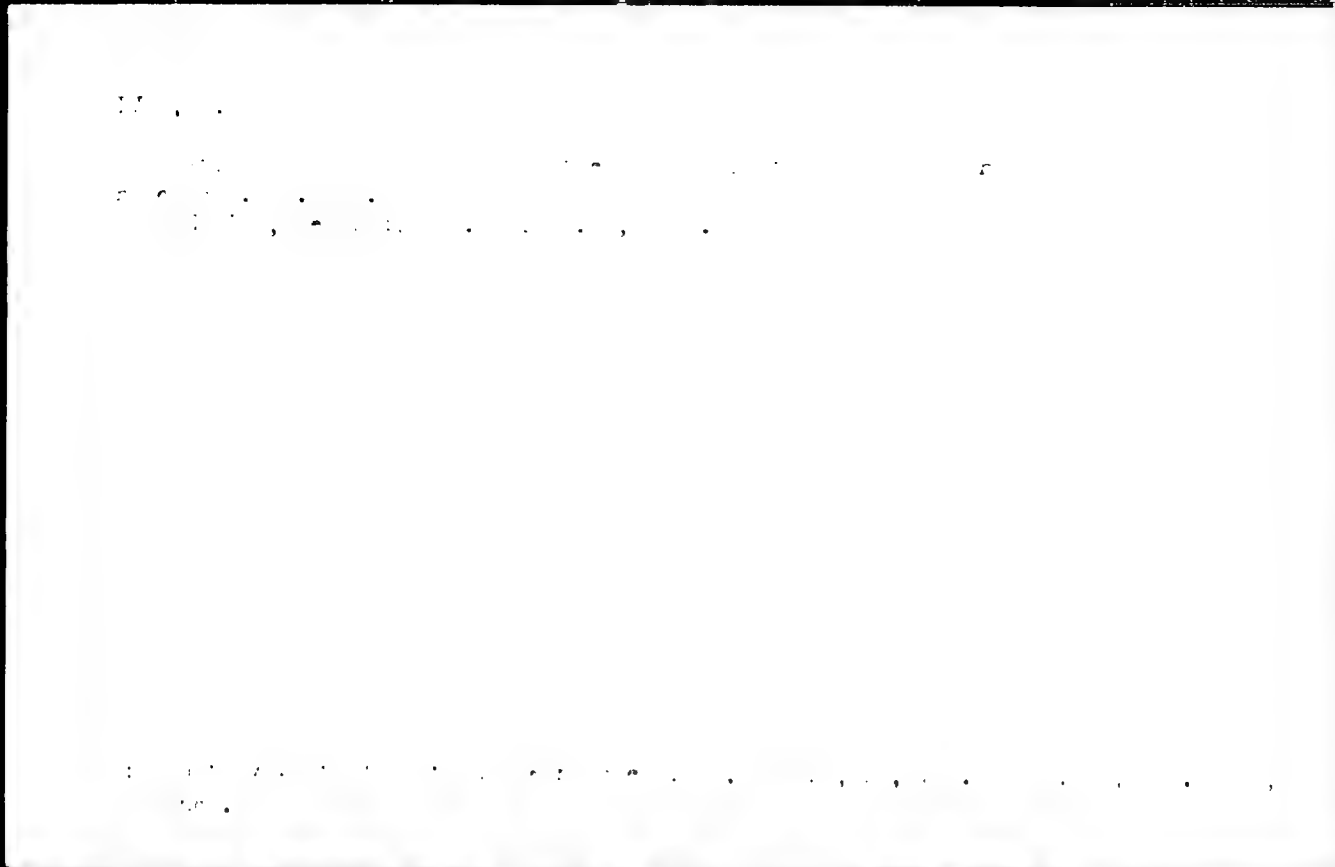
"APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R001341



APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0013411



PIVKO, S.

The method for determining the aerodynamic properties of thin oval rings with axes inclined toward the direction of flight. p. 417.
(*Tehnika*, Vol. 12, no. 3, 1957, Yugoslavia)

SO: Monthly List of East European Accessions (EEAL) LS, Vol. 6, no. 7, July 1957, "Incl.

1(9)

YUG/1-59-1-23/67

AUTHOR: Pivko, Svetopolk, Doctor of Engineering, Associate
(Beograd)

TITLE: Evaluation of Propeller Performance at Higher
Subsonic Speeds

PERIODICAL: Tehnika, 1959, Nr 1, pp 69 - 70 (YUG)

ABSTRACT: The author considers mathematically the variations in thrust, consumed power and propeller efficiency factor at Mach numbers up to 0.8. In the calculation, the acceleration of the airflow through the rotation plane of propeller, unit mass, velocity of sound propagation, width of propeller blades and componental forces of lift and of individual propeller blade resistance, were taken as constant magnitudes (i.e. not variable with the distance from the axis of rotation) in the first approximation. The magnitudes of the thrust, consumed power and propeller efficiency factor gained by integrating the basic equations showed satisfactory con-

Card 1/2

LAZAREVIC, Dorde, akad.; VORONJEC, Konstantin; PIVKO, Svetopolk

Reports on the 6th Yugoslav Congress of Rational and Applied Mechanics, Split, June 4-9, 1962. Glas SANU 14-no.1:63-66 '62 [publ. '63].

1. Corresponding Member of the Serbian Academy of Sciences and Arts (for Voronjec and Pivko).

PIVKO, Svetopolk

Transonic Symposium of the International Union of Theoretical and Applied Mechanics, Aachen, September 3-7, 1962. Glas SANU 14 no.2:125-126 J1-D '62[publ. '63].

Report on the 3rd Congress of the International Council of the Aeronautical Sciences, Stockholm, August 27-31, 1962. Ibid.:125

1. Corresponding Member of the Serbian Academy of Sciences and Arts, Belgrade.

PIVKO, Svetopolk, dr inž., redovni profesor (Beograd, Borisa Kidrica 44b)

Influence of spoilers on the lift of airfoils. Tehnika Jug 18
no.6-901-194 Je '63.

1. Masinski fakultet Univerziteta u Beogradu.

PIVKO, Svetopolk, dr inz. (Beograd, Borisa Kidrica 44b)

A method in determining aerodynamic properties of tubular wings with symmetrical section and inclined axis toward the direction of flying. Tehnika Jug 18 no.5:803-804c My '63.

1. Vazduhoplovnotehnicki institut, Beograd-Zarkovo.

PIVKO, S.

Semiempirical methods in estimating the effect of jet flaps and
spoilers on the lift of airfoils. Bul sc nat SANU 29 no. 6:11-14 1980.

L 12269-63

EPA(b)/EAT(1)/BOS AFFTC/ASD Pd-4
Y/001/61/000/003/001/002

56
55

AUTHOR: Pivko, Svyetopolk, Doctor of Engineering

TITLE: A method of determining aerodynamic properties of a tubular wing¹ of symmetrical profile with the wing axis inclined to the direction of flight

PERIODICAL: Tekhnika, no. 3, 1963, 803-804c.

TEXT: Assuming that the local relative surface flow velocity along a tubular wing can be divided into two components depending on the thickness of the annular profile and on the local angle of incidence respectively, the author simulates the aerodynamic action of the abovementioned wing at zero incident angle by a series of annular sources and sinks distributed over the surface of a cylindrical annular wing, while at small angles he simulates the aerodynamic action by the action of bound vortices, i.e., by an annular whirl of variable strength coupled with the action of free vortices which leave the back edge of the profile and extend to infinity. The aerodynamic properties of the particular profiles and of the whole wing are fixed by the condition that the flow caused by

Card 1/62

1. 12269-63

Y/001/63/000/003/001/002

A method of determining aerodynamic...

the series of annular sources and sinks, i.e., by bound and free vortices, is parallel to the surface of the wing at certain control points chosen at the first quarter of the depth of individual profiles of the wing. Derived equations give the estimates of the magnitudes of the coefficients of the aerodynamic forces and moments acting on an arbitrary longitudinal section or on the entire wing. This paper is based on previous investigations published by the same author in the following references: Ref. 2 (S. Pivko, The Journal of the Royal Aeronautical Society, 60, 545, p. 348-350, London, May 1956. Appendix, 547, p. 491, London, July 1956.); Ref. 4 (S. Pivko, Procena aerodinamickih svojstava tankog prstenastog krila pri malim napadnim uglovima /Estimate of aerodynamic properties of an annular wing at small incident angles/ Saopštenja Vazduhoplovnotehnichkog instituta /Reports of the Aerotechnical Institute/, V8 - 009, Belgrade, 1955); Ref. 5 (S. Pivko, Procena aerodinamickih svojstava prstenastog krila sa debelim simetričnim profilom pri malim napadnim uglovima /Estimate of the aerodynamic properties of an annular wing with a thick symmetric profile at small incident angles/ Saopštenja Vazduhoplovnotehnichkog instituta /Reports of the Aerotechnical Institute/, V8 - 104, Belgrade, 1955). There are 3 figures.

Card 2/6

Aerotechnical Inst.

22150

IC 3000

Y/001/60/000/009/001/001
D233/D304

AUTHOR: Pivko, Svetopolk, Doctor of Engineering

TITLE: Effect of jet exhausted from the trailing edge on the aerodynamical properties of a thin wing profile

PERIODICAL: Tehnika, no.9. 1960 1699-1702

TEXT: The article contains a report with the above title held at the conference of the Gesellschaft fuer angewandte Mathematik und Mechanik (GAMM) (Society for Applied Mathematics and Mechanics) in Freiberg, GDR, from 20 to 23 April 1960. The article presents a brief mathematical treatment of the lift and pitching moment of a thin wing profile, caused by the fluid jet exhausted from the trailing edge. The calculations are based on the assumption that the airflow around the profile does not change the velocity distribution in the jet and that the resulting aerodynamic effect of the jet on the profile, under a small angle of attack, does not differ

Card 1/3

22353

Y/001/60/000/009/001/001
D223/D304

Effect of jet exhausted from the trailing edge on the aerodynamical properties of a thin wing profile

considerably from the effect of a linear turbulence distribution. From the experiments it becomes evident that turbulence intensity is a magnitude dependant only on the flow conditions in the jet. Following the examples in the classical theory, the aerodynamic effect of a thin wing profile at a small angle of attack can also be substituted by turbulence distribution along the axis. The turbulence intensity is represented by the Fourier series and the unknown constants are calculated by means of profile flow conditions. The theoretical values obtained tallied with the values obtained by experiments in a wind tunnel. There are 4 figures and 4 references: 1 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: S Pivko, A Simplified Method for Estimating the Properties of Thin Aerofoils Influenced

Card . .

72353
Y/001/60/000 009 001 001
D233/D304

Effect of jet exhausted from the trailing edge on the aerodynamical properties of a thin wing profile

by Jet, Journal of the Royal Aeronautical Society, 64, London, 1960.
N.A. Dimmock, An Experimental introduction to the Jet Flap, ARC,
Current Papers CP 344, London, 1957; N A. Dimmock, Some Further
Jet Flap Experiments, ARC, Current Papers, CP 345, London, 1957.

ASSOCIATION: Vazduhoplovno-tehnički institut (Aviation Engineering
Institute) Belgrade

SUBMITTED April 26, 1960

Card 3/3

✓

S/128/60/000/012 006 014
A054/A030

AUTHOR: Pivko, V.M.

TITLE: Mechanization and Automation of Transport in the Foundry Industry

PERIODICAL: Liteynoye proizvodstvo, 1960, No. 12, pp. 17 - 23

TEXT: Mechanization and automation in foundries can be completed only when transport and loading are also mechanized and automated. At present, however, quite a number of these processes require manual labor. The possibilities of mechanizing and automating such processes are described below. 1) The composition of the charge and the loading of the foundry furnace are still carried out manually. The various metal components of the charge are put in the bucket by hand, while coke and lime are fed in from bunkers with the manual control of the bunker lock, all these operations requiring the labor of 5 - 6 workers. The proportioning of non-metallic components does not involve difficulties, but that of the metals is difficult due to their varying particle size and shape. The composition of the charge could be mechanized by cranes provided with electromagnetic discs and by regulating the load capacity thereof, while the charge can be fed into the furnace with inclined hoisting devices and bottom-discharging buckets. ✓

Card 1/15

S/128/60/000 012/006/014
A054/A030

Mechanization and Automation of Transport in the Foundry Industry

The metal components can be weighed by lowering them with the crane onto bunker-scales with a pointer so that the crane-operator should be able to control their weight. Coke, lime and ferro-alloys can be put from their bunkers into the buckets by volumetric or weigh-batchers. This phase of mechanization requires two workers. Another method of mechanizing the charge composition is by using vibrating or apron feeders. Designs are being made for such a system with an output of 20 tons/h, in which coke, lime and ferro-alloys are fed from the bunkers through weigh-batchers having an automatic working cycle, while the metal components of the charge are fed by electrovibrating feeders which are synchronized with special weigh-batchers made in form of apron-feeders and which can be set for one operational cycle. It is planned to synchronize the operation of this system with that of the furnace. However, this system can be applied only in cases where the particle sizes of the metal components are between 250 and 350 mm. In many factories there are mechanical bunkers for the charge material and the bunkers are, moreover, at quite a distance from the furnaces. In such cases suspended belts can be applied. 2) Receiving and grading new forging materials. It is important that the wagons can be discharged into trenches at both sides, from which the materials can be collected at any time by bridge cranes. Very often, however, it

Card 2/15

S/128/60/000-012, 006 014
A054/A030

Mechanization and Automation of Transport in the Foundry Industry

is necessary to load the materials discharged from the wagons into bunkers. The best solution is a system of underground bunkers and belts which eliminates the reloading of the materials. As the consumption of pulverized clay and coal is relatively small, it would be possible to establish central plants for the grading of clay and coal and to distribute them in a dried and crushed condition, hereby eliminating the drying and grinding equipment in smaller foundries. The pulverous clay and coal can then be pneumatically transported into the bunkers of the plant. In cases where the materials are graded in the foundry itself, however, it is better to apply separate drying equipment for clay and sand, because this ensures a higher degree of mechanization and better quality mixtures. An adequate system of wet clay feeding is represented in Figure 3. 3) Grading and transport of forming and core mixtures. In many foundries equipment for mechanized preparation of these mixtures is used, some are even partly automated. In order to make these installations fully automatic it is indispensable to include devices for controlling the humidity and temperature of graded materials, to ensure the required humidity of the finished mixture. Such devices, however, are not yet available. For feeding forming materials from the bunkers into the runners mostly box-type feeders with pneumatic drive are applied. To ensure an ac-

Card 3/15

S 128/60.000.012 006.014
A054/A030

Mechanization and Automation of Transport in the Foundry Industry

curate composition of the mixture, weigh-batchers should be preferred to volumetric batchers. A weigh-proportioning machine for clay, powder, coal, sand and black sand, constructed in the Kiyev Factory of Automatic Feeding Equipment is shown in Figure 4. When the same transport system is used for various forming materials, the distribution of the materials in the bunkers can only be accurate, if not only the upper, but also the lower level of the bunker material is controlled. Indicators for this kind of control are not yet available, however. Certainly, there are electric devices for controlling the upper and lower level, for instance, the electronic ЭСУ-1 (ESU-1) type apparatus of the Fizpribor Factory, but they can only be applied for loose bulk material and not for sticking substances, such as coal, etc. The work for designing a suitable device for this purpose will, therefore, have to be accelerated. The runners now in use ("115" and "116" types) have only one device for charging and discharging materials, while the forming and core mixtures usually contain 3 - 4 components. The runners, therefore, have to be reconstructed adequately and in the electric automatic control system of runners, feeders for the various components and indicators to measure their humidity have to be included. Soyuzprommekhanizatsiya and Ural-mashzavod designed a suction type pneumatic piece of equipment with vacuum pumps

Card 4/15

S/128/60/000/012/006/014
A054/A030

Mechanization and Automation of Transport in the Foundry Industry

for the removal of black sand from one knock-out screen at a distance of about 100 mm, its operation is unsatisfactory, however. Other initiative has also been taken in this field, but it must be concluded that these methods are not suitable for transporting black sand. In general it can also be said that a pneumatic system for distributing the forming material is only economical where no high output is required and the material does not have to be delivered at many places. Pneumatic transport can be applied for the above purposes much more suitably in combination with belts, which have so far proved the most suitable method of transporting forming mixtures and black sand and which can easily be included in the automatic system. The belt width of 500 mm usually employed in foundries for black sand is not sufficient, however. In order to prevent the sand from falling off the belt, the width should be increased to 1 m. Care should also be taken in arranging the equipment for preparing mixtures. The transport-distances should be as short as possible and for this reason the equipment usually has to be mounted in line with the forming and knock-out machines. 4) Feeding the mixture into the forming machines and automats. For this purpose belt type feeders are the most suitable (reversing, extending and combined types). They can be connected electrically with the feeders of the forming machines. By applying belt feeders,

Card 5/15

S 128, 60 000/012 006.014
A054/A030

Mechanization and Automation of Transport in the Foundry Industry

it is possible to increase the discharge opening of bunkers and to reduce the arc formation of the material in the bunker. The belt feeders should not be produced from elements of conveyor belts but should be made of special, small, standard elements. In some cases apron type feeders can also be used, mainly if the feeders have to work under high pressure. 5) Transport of molding forms, molding boxes, castings and runner systems. In mass-production foundries for delivering the molding forms in the forming, casting, cooling, knockout-line, horizontal-closed-circuit conveyors are the most suitable. The construction of the moving parts of these conveyors is such that they can be arranged in various ways, with several turns; they can easily be combined with hoisting devices of any type. They can be provided with two drives and can be made very long. A special horizontal closed-circuit conveyor has been designed for the Moscow Motor Car Factory which does not have plates, but in which the platforms overlap each other, thus forming a continuous belt. Some factories use vertical closed-circuit conveyors; the upper branch is used for assembling and casting, the lower for cooling. This kind of conveyor requires less space, the forming machines can be mounted on both sides and make the assembly, knockout, etc., easy to automate. This transport system is recommended for small castings and for workshops having little space.

Card 6/15

S 128/60/000/012 006/014
A054/A030

Mechanization and Automation of Transport in the Foundry Industry

Soyuzprommekhanisatsiya designed a standard type for these conveyors with a load capacity of the platform of 500 kg. This undertaking also designed a special type of vertical closed-circuit pulsating conveyors for the Uralmashzavod, in which only the upper branch runs by hydraulic drive. It is 35 m long and the load capacity of one platform is 15 tons. In some factories traveling and pulsating conveyors are used, however, their operational range is more restricted than that of the above mentioned ones. They deliver only in one direction and in a straight line. In the Gorkov Machine Factory a vertical closed-circuit traveling conveyor system is in operation, delivering forms 2,000 x 1,200 mm in size, in both directions, with a load capacity of more than 5 tons per running meter. In many factories, mainly in those for mass production, special conveyors are used (belt, apron, roller, chain, etc.) designed by the works engineers. Many parts of these conveyors could be standardized (pneumatic cylinders, air-distributors, drums, etc.). In the forming workshops, besides the horizontal conveyors, suspended types are also used. These two types can be synchronized electrically or mechanically (preferably the latter). In some factories castings and runner systems are delivered on apron and suspended chain conveyors over long distances, while, during the transportation time the castings are also cooled, assorted, etc.

Card 7/15

S/128/60/000/012/006/014
A054/A030

Mechanization and Automation of Transport in the Foundry Industry

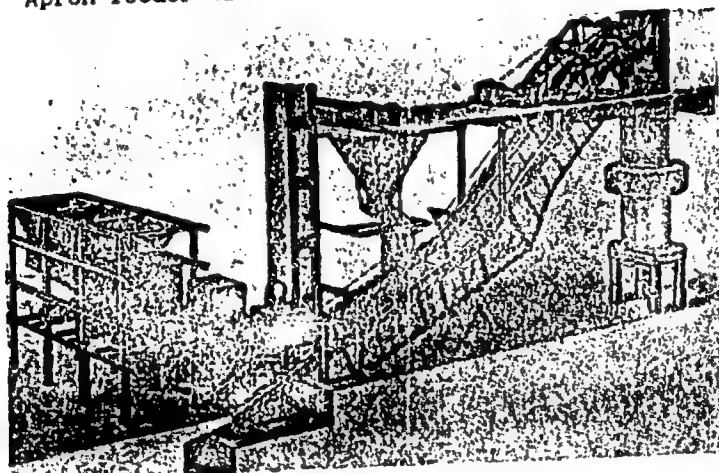
Apron conveyors are more reliable than suspended ones. The operations of and on the conveyor can, moreover, be easily mechanized. Where small and medium size castings are handled, the loading and reloading of the conveyor can be automated. Besides the above mentioned quite new types of conveyors should be constructed for pushing out the product delivered at a given place or pushing the product from one conveyor to another. In the Gorkov Motor Car Factory a pushing suspended conveyor (without automatic control) delivers the castings in the cleaning shop. Vibrating belts and feeders could be used in grading the castings and runner systems and loading them on suspended conveyors. There are 7 figures.

Card 8/ 15

S/128/60/000/012/006/014
A054/A030

Mechanization and Automation of Transport in the Foundry Industry

Figure 1: Apron feeder with electric scale car

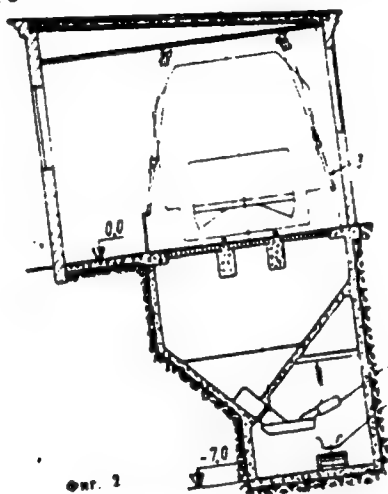


Card 9/15

S/128/60/000/012/006/014
A054/A030

Mechanization and Automation of Transport in the Foundry Industry

Figure 2: Underground bunkers for storing coke

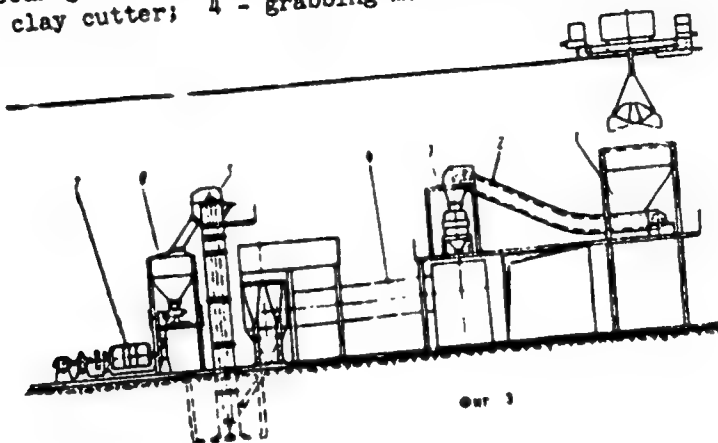


Card 10/15

S/128/60/000/012/006/014
A054/A030

Mechanization and Automation of Transport in the Foundry Industry

Figure 3: Feeding apparatus for wet clay: 1 - receiving bunker; 2 - apron feeder; 3 - clay cutter; 4 - grabbing mechanism; 5 - elevator; 6 - disc type feeder.

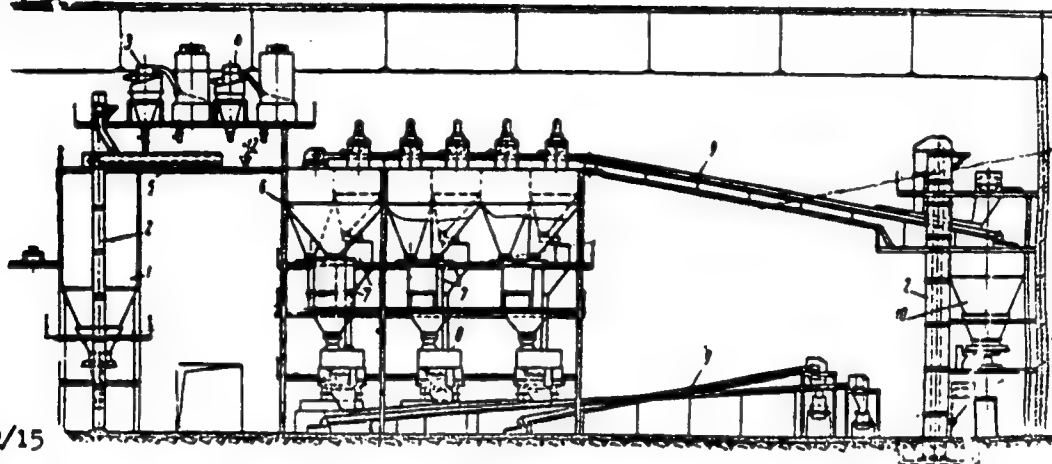


Card 11/15

S/128/60/000/012/006/014
A054/A030

Mechanization and Automation of Transport in the Foundry Industry

Figure 4: Weigh-batcher for pulverous clay, etc. (Kiyev Plant): 1 - bunker; 2 - ladle-elevator; 3 - pneumatic sand feeding system; 4 - ditto for clay; 5 - conveyor with loaded belt; 6 - bunker; 7 - weigh-batcher; 8 - runners; 9 - belt conveyor; 10 - black sand bunker.

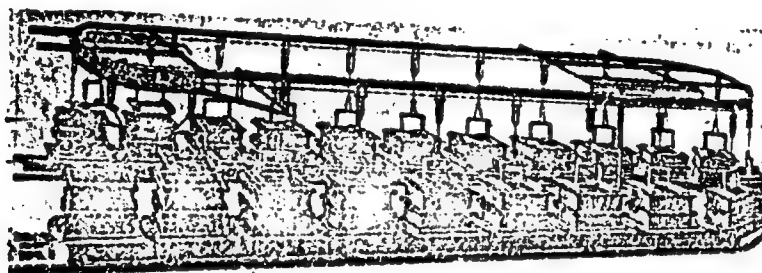


Card 12/15

S/128/60/000/C12 006/C14
A054/A030

Mechanization and Automation of Transport in the Foundry Industry

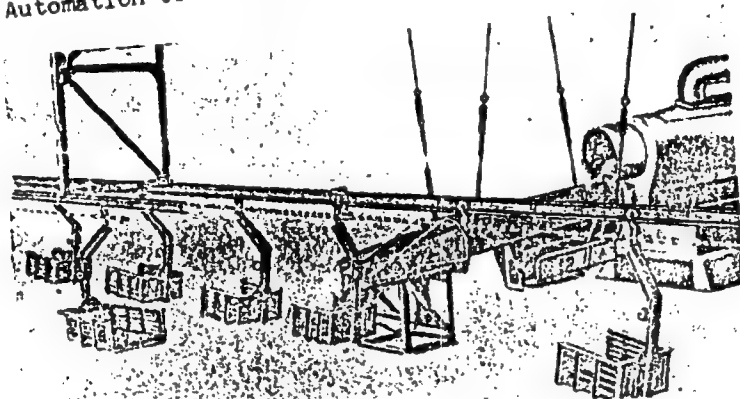
Figure 5: Mechanical synchronization of conveyors



Card 13/15

S/128/60/000/012/006/014
A054/A030

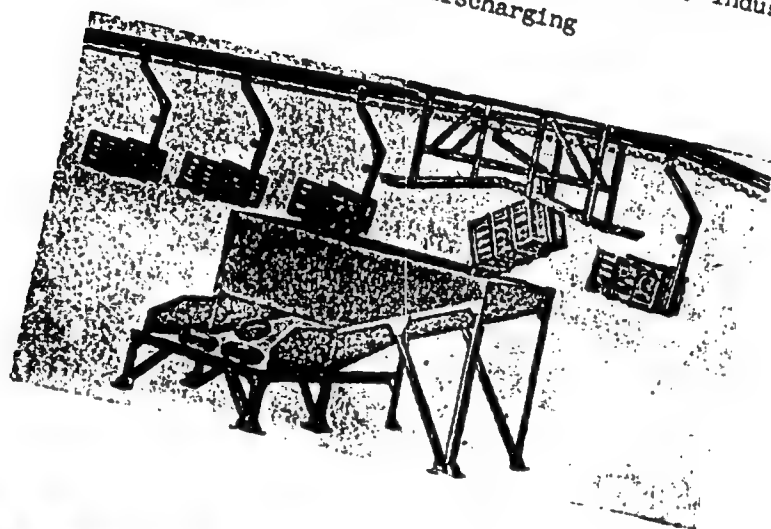
Mechanization and Automation of Transport in the Foundry Industry
Figure 6: Automation of loading and discharging.



Card 14/15

Mechanization and Automation of Transport in the Foundry Industry
Figure 7: Automation of loading and discharging

S/128/60/000/012/006/014
AC54/AC30



Card 15/15

PIVKO, V.M., insh.

Mechanization and automatization of transportation in foundries.

Lit. proizv. no. 12:17-23 D '60. (MIRA 13:12)

(Foundries--Equipment and supplies) (Conveying machinery)

(Automatic control)

PIVKO, V.M., inzh.

Mechanization and automation of operations in preparing furnace
charges and charging cupolas. Mekh.i avtom.proizv. 14 no.3:31-34
Mr '60. (MIRA 13:6)

(Railroads--Technological innovations)
(Automation)

INT (d) / INT (v) / INT (k) / INT (h) / INT (1)
ACC NR: 1760.9993 (A, N) SOURCE CODE: UR/0413/66/000/015/0131/0132

INVENTORS: Pal'kov, L. G.; Kutskiy, V. V.; Simkin, Yo. L.; Rubin, A. Ya.; Marinokiy, A. I.; Belyubov, S. A.; Shakhovina, G. V.; Chalov, V. S.; Rabinov, A. I.; Pivkov, T. M.; Ivanov, K. V.

ORG: none

TITLE: Movable apparatus. Class 49, No. 184584

SOURCE: Izobret prom obras tov zn, no. 15, 1966, 131-132

TOPIC TAGS: metalworking, gas welding, metal welding, welding equipment, welding technology, milling machine

ABSTRACT: This Author Certificate presents a movable apparatus for machining the edges prior to welding two large objects. The apparatus contains a milling head mounted on self-propelled carriages. The head is fed axially along the outline of a detail by a pantographic copying mechanism. To increase the efficiency and the accuracy in milling the edges located on any plane upon an immovable structure, the self-propelled carriages are placed on the surfaces being machined (see Fig. 1). The apparatus itself is provided with an auxiliary milling head for machining the opposite edge facing the first one. The edges are separated by gas cutting torches placed in front of the moving apparatus.

Cord 1/2

UDC: 621.914.37-182.3:621.791.945.021

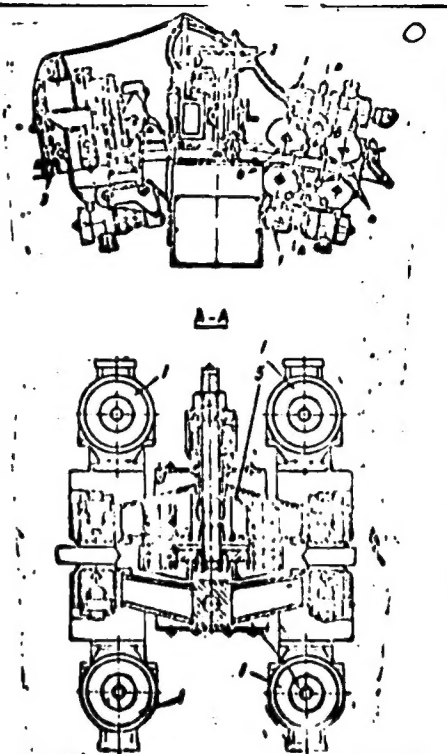
L 09257-67

ACC NR: AP6029953

Fig. 1. 1 - self-propelled
carriages; 2 - milling heads;
3 - gas cutting torches; 4 -
running rollers; 5 - coupling
device

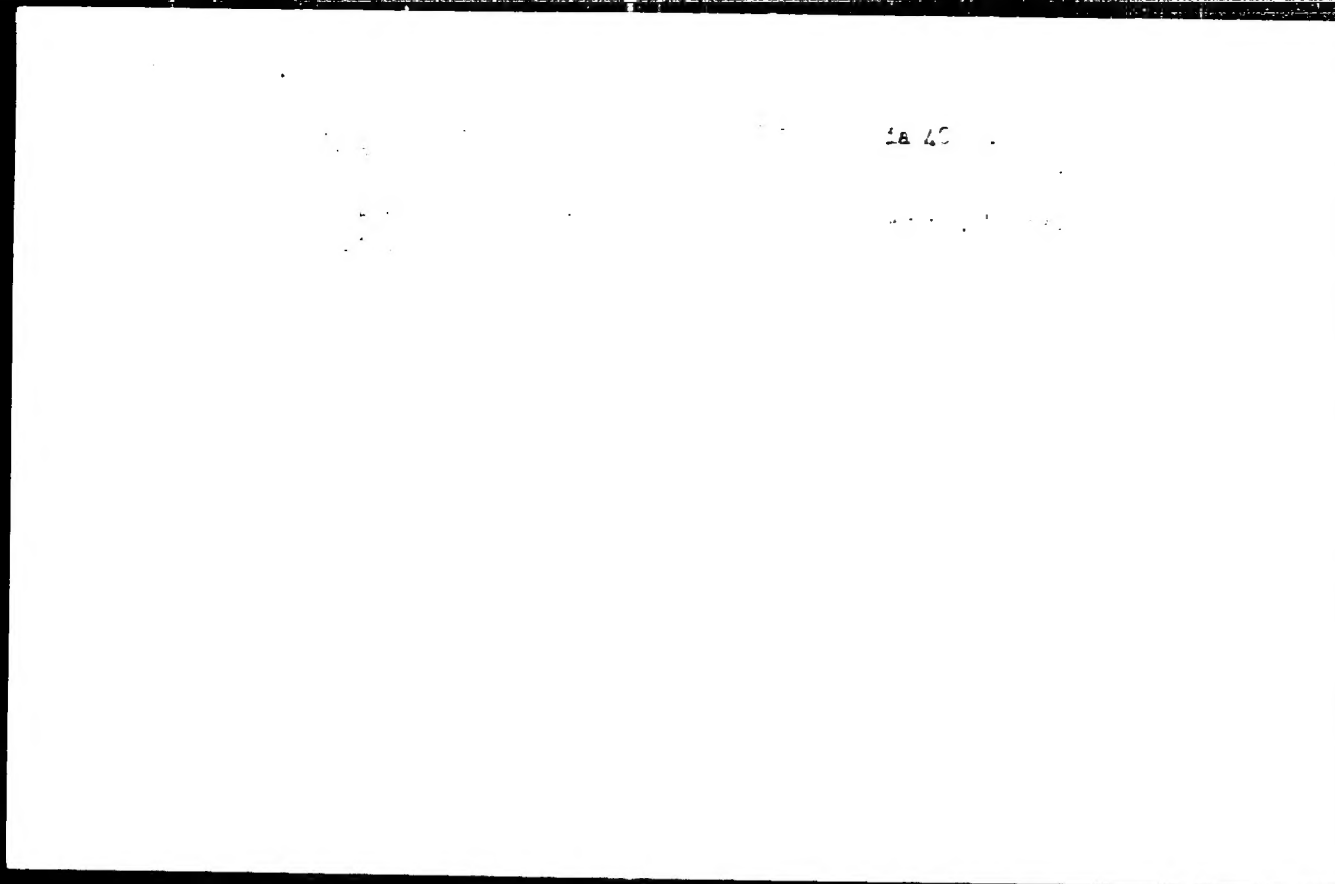
Orig. art. has: 1 figure.

13/ SUBM DATE: 20May64



"APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R001341



APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R0013411